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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,897	11/18/2003	Gue-Tai Lee	8733.876.00-US	2798
30827	7590	06/23/2005	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			TON, MINH TOAN T	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	
			2871	

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/714,897

Applicant(s)

LEE ET AL.

Examiner

Toan Ton

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 19-30 is/are rejected.
- 7) ☒ Claim(s) 13-18 and 31-36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-12 and 19-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee (2004/0090564, cont of 6680772).

Lee discloses an array substrate for use in an IPS-LCD device and a method of manufacturing thereof, comprising (see at least Figures 5A, 5B) line 121 over a substrate and disposed in a first direction; a common line 123 over the substrate and disposed in the first direction next to the gate line; a data line 161 over the substrate and disposed in a second direction substantially perpendicularly crossing both the gate line and the common line to define a pixel region; a thin film transistor at a crossing of the gate and data lines; a pixel electrode 182/183 in the pixel region, the pixel electrode having a plurality of pixel fingers and a pixel horizontal portion (see at least Figure 5A); and a common electrode 124/125 in the pixel region, the common electrode having a plurality of common fingers extending from the common line parallel with the pixel fingers, wherein each of the common fingers has a gentle slope outline at a portion where the common finger meets the pixel finger (see at least Figure 5A).

Lee discloses the thin film transistor including a gate electrode connected to the gate line, an active layer, a source electrode connected to the data line, and a drain electrode connected to the pixel electrode (see at least Figure 5B).

Lee discloses the pixel fingers and the common fingers having zigzag shapes (see at least Figure 5A).

Lee discloses a bent angle of the zigzag shapes being at least within  $\pm 1-30$  degrees with respect to an alignment direction of a liquid crystal layer (see at least Figure 5A).

Lee discloses the plurality of pixel fingers disposing in the second direction (see at least Figure 5A).

Lee discloses the pixel horizontal portion connecting the plurality of pixel fingers and disposing in the first direction (see at least Figure 5A).

Lee discloses the pixel horizontal portion electrically connected with the drain electrode of the thin film transistor (see at least Figure 5A).

Lee discloses the common line and the common electrode formed as one united body (see at least Figure 5A).

Lee discloses the pixel fingers and the pixel horizontal portion formed as one united body (see at least Figure 5A).

Lee discloses the common fingers comprising portions that do not meet the pixel horizontal portion in the pixel region (see at least Figure 5A).

Lee discloses the gentle slope outline including a first portion, a second portion and a third portion having different slopes from one another, wherein the first (horizontal) portion is substantially perpendicular to the data line (see at least Figure 5A).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claims 1-17 and 19-30 above, and further in view of Lee (US 6839111).

Lee discloses an IPS LCD device comprising common fingers having portions with rounded vertices (see at least Figures 1, 5), wherein the device yielding advantages such as minimizing light leakage. Therefore, it would have been obvious to one of ordinary skill in the art to employ an IPS LCD device comprising common fingers having portions with rounded vertices (see at least Figures 1, 5), wherein the device yielding advantages such as minimizing light leakage.

***Allowable Subject Matter***

5. Claims 13-17 and 31-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2871

The prior art of record does not anticipate nor render obvious to one ordinary skilled in the art an IPS liquid crystal display device comprising a combination of various elements and a method of making a combination of various steps as claimed, more specifically, the particular angles formed between the first, second and third portions as recited in claims 13-17 and 31-35.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 20, 2005

  
**TOANTON  
PRIMARY EXAMINER**